

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2017-108 Date Opened: 27-June-17 Title: AssemblyAircraft OEM: Airbus Helicopters Aircraft Model: AS350 Product Type: Bike Rack Product Model: Base Quantity: 2 LH / 2RH**Work Order Contents**

	Initial or N/A
Work Order/Build Sheets (Procedures Provided)	DM
Additional Work Sheets (Standard Practice)	N/A
Drawings (See List Below)	DM
Parts Distribution Sheet	DM
Sub Component Tags	N/A
Completed Certification (Original)	N/A
Time Sheet (R&D)	N/A
Notes	N/A

Build Sheet Contents

	Initial or N/A
Tasks Initialled	JC
Dual Inspections Initialled	JC

Drawing List

Drawing #	Rev #	Description	Initial or N/A
100215	0	Bike Rack Base Ass'y	DM

Traveller

Initial or N/A

Work performed by:

Print: D. MartynSign: 

ICC / Dual Inspection performed by:

Print: J. RekveSign: 

Work Order closed by:

Print: J. ClarkeSign: 

Approved Manufacturing Facility 73-04

Form 20.003

Component Completion

	As Instructed
Quantity Complete on This Work Order	2 / 2
Quantity Incomplete on This Work Order	N/A
Further Processing Required Before Release	N/A
Release to Stock as Components	N/A

Certification

	Initial or N/A
Form One Completed	N/A
Serviceable (Green) Tag Completed	N/A
In Process (Yellow) Tag Completed	JC
Unserviceable (Red) Tag Completed	N/A
Parts Placed in Stores for Distribution	JC

Additional Documentation

	Initial or N/A
Documentation of a minor change	N/A
Non-Conformance Report Required	N/A
Service Difficulty Report Required	N/A

Billing

	Initial or N/A
Local (Aero Design)	JC
Research and Development	N/A
Third Party	N/A

SCA: AD05Date: 10-Jul-17SCA: AD01Date: 10-Jul-17SCA: AD02Date: 15-Aug-17

Rev. Original 23 Sep 2014



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Serviceable

Remarks

2 of 4 used on 2017-108 June 28/2017

4 of 4 used on 2017-108 July 10/2017



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AMF 73-04

Nomenclature: BEAM No. of pieces: 4

Manufacturer: AERO DESIGN LTD.

Part No.: 100232-01 Serial/Batch No.: P0 17026

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2017-101

Remaining Tasks to be Performed: INSTALL

Signature: JH Chet

Date: 26 JUNE 2017 Lic. No. / SCA A002



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AMF 73-04

Remarks

In Process



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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd

Part No.: 100215-01-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-108

Remaining Tasks to be Performed: clean up, inspect,
powder coat. ✓

Signature: David Thuy

Date: July 10/2017 Lic. No. / SCA AD-05

In Process



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AMF 73-04

In Process

Remarks



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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd

Part No.: 100215 - 01-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-108

Remaining Tasks to be Performed: clean up, inspect,
powder coat. ✓ ✓ ✓

Signature: David Marty

Date: July 10/2017 Lic. No. / SCA AD-05

In Process



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AMF 73-04

In Process

Remarks

- Clean up ✓
- Inspect ✓
- Powder coat ✓



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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 100215-01-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-108

Remaining Tasks to be Performed: See back side

Signature: David Duntz

Date: June 27/2017 Lic. No. / SCA AD-05

In Process



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AMF 73-04

In Process

Remarks



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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1

Manufacturer: Aero Design Ltd

Part No.: 100215-01-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-108

Remaining Tasks to be Performed: clean up, inspect,
powder coat. ✓

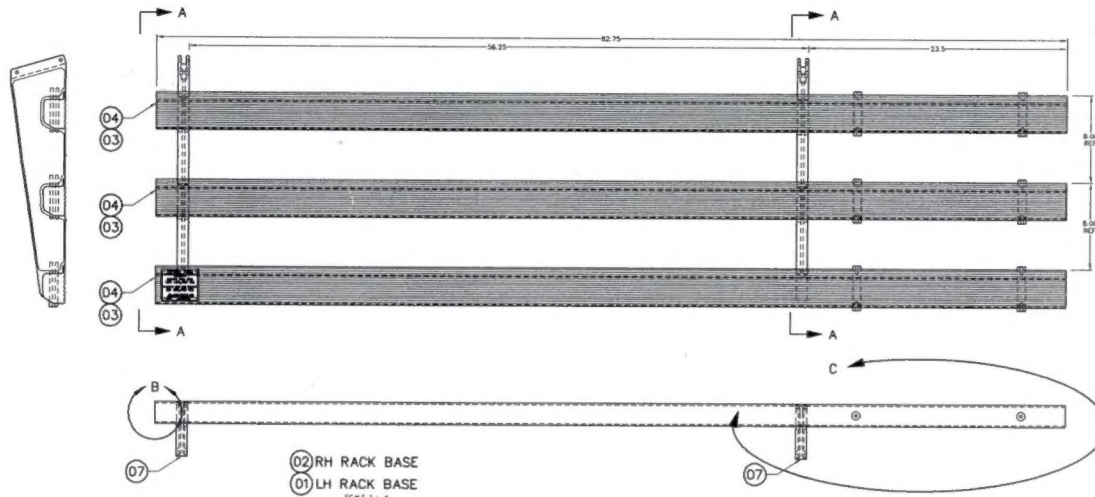
Signature: Russ Martz

Date: July 10/2017 Lic. No. / SCA AD-05

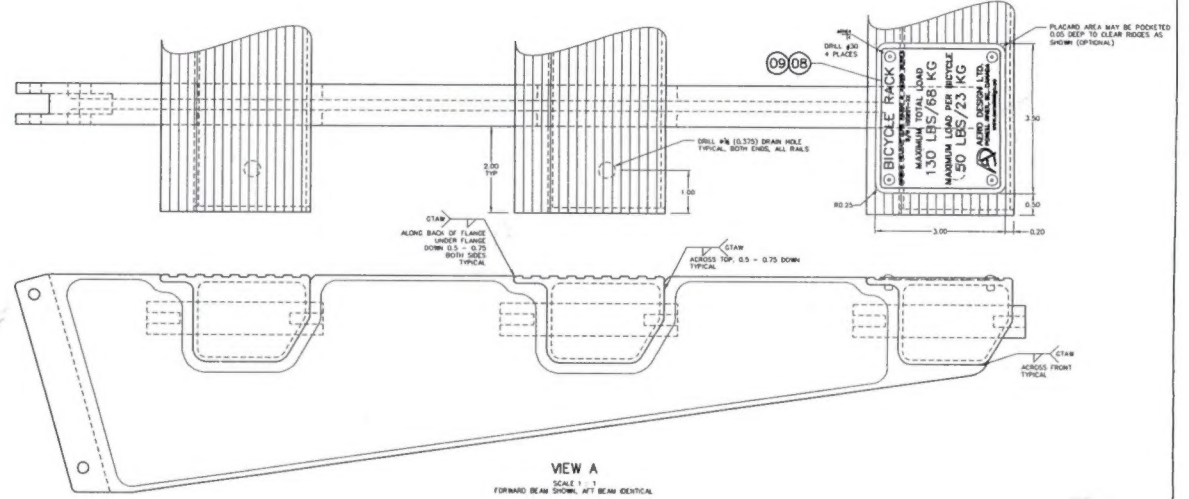
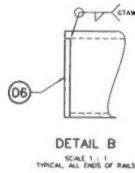
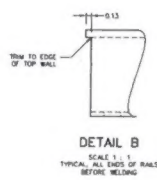
In Process

2017-108

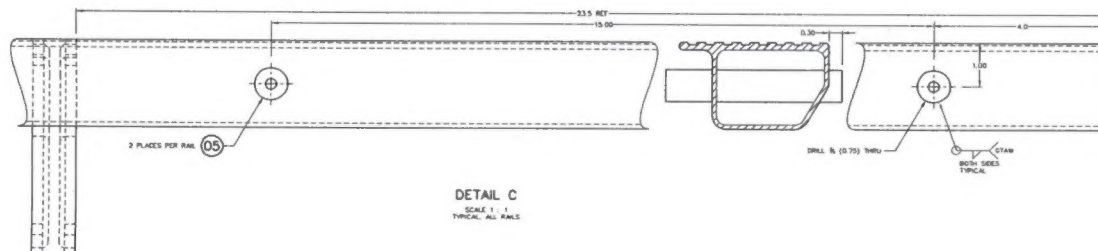
REV	DESCRIPTION OF CHANGE	INITIALS	DATE
01			



02 RH RACK BASE
01 LH RACK BASE
SCALE 1:4
LH SHOWN, RH OPPOSITE



VIEW A
SCALE 1:1
FORWARD BEAM SHOWN, RTT BEAM IDENTICAL



DETAIL C
SCALE 1:1
TYPICAL, ALL RAILS

REV	DESCRIPTION	DATE	BY	CHKD	APP'D	QTY	UNIT	STOCK
1	010215-01 10 BLIND RIVET	13 JUNE 2008	JTF CLARK					
2	100215-02 08 PLACARD	13 JUNE 2008	JTF CLARK					
3	100215-03 08 PLACARD	13 JUNE 2008	JTF CLARK					
4	100215-04 08 PLACARD	13 JUNE 2008	JTF CLARK					
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7	100215-07 08 PLACARD	13 JUNE 2008	JTF CLARK					
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9	100215-09 08 PLACARD	13 JUNE 2008	JTF CLARK					
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BASIC CODE REV. WAS 553		DATE NO. FOR DIMENSION PRINTED: HEAD NEW SIZE FORWARD: HEAD NEW SIZE		APPROVALS DATE 13 JUNE 2008		LIST OF MATERIALS	
C-COUNTERSINK TO BE DIMPLED		DATE NO. FOR LENGTH TO BE DIMPLED		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS 3.15X ±0.010 3.15X ±0.013 3.15X ±0.1		AIRBUS HELICOPTERS AS350 & AS355 SERIES BICYCLE RACK INSTALLATION RACK BASE FABRICATION SCALE 1:4 SHEET 1 OF 1	
BASIC CODES: B1 = WELD TO HEAD B2 = WELD TO HEAD B3 = WELD TO HEAD B4 = WELD TO HEAD B5 = WELD TO HEAD B6 = WELD TO HEAD B7 = WELD TO HEAD B8 = WELD TO HEAD B9 = WELD TO HEAD B10 = WELD TO HEAD B11 = WELD TO HEAD B12 = WELD TO HEAD B13 = WELD TO HEAD B14 = WELD TO HEAD B15 = WELD TO HEAD B16 = WELD TO HEAD B17 = WELD TO HEAD B18 = WELD TO HEAD B19 = WELD TO HEAD B20 = WELD TO HEAD B21 = WELD TO HEAD B22 = WELD TO HEAD B23 = WELD TO HEAD B24 = WELD TO HEAD B25 = WELD TO HEAD B26 = WELD TO HEAD B27 = WELD TO HEAD B28 = WELD TO HEAD B29 = WELD TO HEAD B30 = WELD TO HEAD B31 = WELD TO HEAD B32 = WELD TO HEAD B33 = WELD TO HEAD B34 = WELD TO HEAD B35 = WELD TO HEAD B36 = WELD TO HEAD B37 = WELD TO HEAD B38 = WELD TO HEAD B39 = WELD TO HEAD B40 = WELD TO HEAD B41 = WELD TO HEAD B42 = WELD TO HEAD B43 = WELD TO HEAD B44 = WELD TO HEAD B45 = WELD TO HEAD B46 = WELD TO HEAD B47 = WELD TO HEAD B48 = WELD TO HEAD B49 = WELD TO HEAD B50 = WELD TO HEAD B51 = WELD TO HEAD B52 = WELD TO HEAD B53 = WELD TO HEAD B54 = WELD TO HEAD B55 = WELD TO HEAD B56 = WELD TO HEAD B57 = WELD TO HEAD B58 = WELD TO HEAD B59 = WELD TO HEAD B60 = WELD TO HEAD B61 = WELD TO HEAD B62 = WELD TO HEAD B63 = WELD TO HEAD B64 = WELD TO HEAD B65 = WELD TO HEAD B66 = WELD TO HEAD B67 = WELD TO HEAD B68 = WELD TO HEAD B69 = WELD TO HEAD B70 = WELD TO HEAD B71 = WELD TO HEAD B72 = WELD TO HEAD B73 = WELD TO HEAD B74 = WELD TO HEAD B75 = WELD TO HEAD B76 = WELD TO HEAD B77 = WELD TO HEAD B78 = WELD TO HEAD B79 = WELD TO HEAD B80 = WELD TO HEAD B81 = WELD TO HEAD B82 = WELD TO HEAD B83 = WELD TO HEAD B84 = WELD TO HEAD B85 = WELD TO HEAD B86 = WELD TO HEAD B87 = WELD TO HEAD B88 = WELD TO HEAD B89 = WELD TO HEAD B90 = WELD TO HEAD B91 = WELD TO HEAD B92 = WELD TO HEAD B93 = WELD TO HEAD B94 = WELD TO HEAD B95 = WELD TO HEAD B96 = WELD TO HEAD B97 = WELD TO HEAD B98 = WELD TO HEAD B99 = WELD TO HEAD B100 = WELD TO HEAD		+ INITIAL NEW RIVET + REMOVE/REPLACE RIVET + EXISTING RIVET		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS 3.15X ±0.010 3.15X ±0.013 3.15X ±0.1		AIRBUS HELICOPTERS AS350 & AS355 SERIES BICYCLE RACK INSTALLATION RACK BASE FABRICATION SCALE 1:4 SHEET 1 OF 1	

Aero Design Ltd. Component Fabrication

Work Order Number: 2017-108 100215-01 Bicycle Rack Base

Date: June 27/2017

Notes:

Drilling speed to 320 RPM.

Rapid Tap cutting fluid or equivalent coolant required

Rail

Tasks	SCA
1. Record material PO below	AD-05
2. Cut 78230 step extrusion to 82.75" in length	P.W.P.C.W.
On each end, cut the side and bottom walls shorter by 1/8" leaving the tread rail full length IAW drawing 100215 Detail B	P.C.W.
3. Deburr one end on buffing wheel	P.C.W.
4. On the bottom wall, place a mark 7/8" from each end and drill 3/8" hole which will act as a drain and allow ventilation during the welding process	P.C.W.

Manual Mill

5. While supporting the long end of the rail, clamp aft end (dependant on LH or RH) into the manual mill vice	P.C.W.
6. Using standard practices, zero off of the end and back of the part and set zero on the X and Y axis on the digital display	P.C.W.
7. Set table to drill locations IAW drawing 100215 Detail C and bore .75" holes	P.C.W.
8. Deburr edges and holes	P.C.W.

Welding

9. Wipe parts with Acetone or equivalent solvent	P.C.W.
10. Place 100226-01 bushings in .75" holes and locate them IAW drawing 100215 Detail C	P.C.W.
11. Weld IAW drawing 100215	P.C.W.
12. Place cap 82720-04 on each end and weld IAW drawing 100215 Detail B	P.C.W.

Beam

13. Cut 1" x 8" 6061-T6 extruded bar to 24 7/8" in length.	P.C.W.
14. Install material in CNC mill ensuring RH edge overhangs for tool clearance	P.C.W.
15. Set material stop to ensure subsequent steps and parts return to the same location	P.C.W.
16. Load and run program 021 and 022	P.C.W.
17. Rotate part 180 degrees on plane	P.C.W.
18. Load and run program 021 and 022	P.C.W.
19. Separate parts by cutting along mark scribed during machining process	P.C.W.

20.	Install 100230 jig plate into CNC straddling vices and lock down	P.C.W
21.	Using a soft face hammer, tap the jig down to ensure it is seated	P.C.W
22.	Zero table using standard practices	P.C.W
23.	Mount separated part on jig using 1/4" bolts	P.C.W
24.	Load and run program 023	P.C.W
25.	Using vertical band saw, remove tooling lug at the outboard end	P.C.W
26.	On manual mill, zero off the end of the part using standard machining practices	P.C.W
27.	Using standard practices, machine surface area from which lug was removed	P.C.W
28.	Inspect finish and dimensions of final part.	P.C.W

Rack Base Assembly

29.	Insert Helicoils in threaded bushings IAW drawing 100226	P.C.W
30.	Install bike rack base beams into jig fixture	AD-OS
31.	Install rails into beams	AD-OS
32.	Weld IAW drawing 100215	AD-OS
33.	Inspect finish and dimensions of final part.	OK
34.	Tag completed parts IAW Aero Design MPM.	AD-OS

Material Purchase Order Number See P.D.S.

Batch Quantity 2 L/H 2 R/H

Require Powder coat ✓



PRM

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013